

# Rules

Leveraging rule based automation!

<http://drupal.org/project/rules>

# About me

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- Wolfgang Ziegler (fago)

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Drupal related blog: <http://more.zites.net>

- Studying "Information & Knowledge Management" and "Computational Intelligence" at the Vienna University of Technology
- Part-time drupal developer from Vienna, Austria working for Absolventen.at and Zites.net
- Joined the drupal community in 2006  
(Google Summer of Code project "Node Profile")

# Outline

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- Rules!? - What is it
- Google Summer of Code
- Use case 1: React on user inactivity
- Use case 2: An basic editorial workflow
- What's next?

# Rules !?

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- <http://drupal.org/project/rules>
- define conditionally executed actions based on occurring events
- a replacement with more features for the trigger module in core
- the successor of the drupal 5 compatible workflow-ng module
- a tool for site automation and customization

# Triggered Rules

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- Triggered Rules / Reactive Rules
- Users surfing on your Drupal site generate events.
- When the event is triggered associated rules are evaluated.
- Event – Condition – Action
- Example:
  - React when a users posts something
  - Show him a custom message!

# A screenshot...




Editing rule URL alias for sticky content

—▷ Rule settings

▽ Rule elements

ON event *Content is going to be saved*

IF

└ Saved content is sticky 

+ Add a condition

DO

└ Create URL alias

+ Add an action

# Features

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- Import / Export
- Group and reuse rules in “Rule Sets”
- Flexible scheduling system
- Modular input evaluation system (Tokens, PHP, ..)
- A well documented and solid API, which allows modules to
  - provide further conditions, actions and events
  - configure default rules and rule sets

# Summer of Code 2009

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- “Rules Monkey Project” by Klaus Purer (klausi)
- Enhancement and extension of Rules
- New Rules Forms module
- More possibilities for Rules scheduler
- Tutorials
- Many small fixes here and there ...

# Rules Forms Support

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- Manipulate/Customize any form on your Drupal site
- Events:
  - Form is being built
  - Form is being validated
  - Form is being submitted
- Condition:
  - Form element has value

# Rules Forms Support (2)

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- Actions:
  - Hide a form element
  - Disable a form element
  - Adjust weight of a form element
  - Set the default value of a form element
  - Set the redirect target of the form
  - Insert prefix/suffix HTML
  - Set a form error

# Rules Tutorials

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- Documentation on <http://drupal.org/node/298482>
- Tutorials for Rules Scheduler and Rules Forms support
- They provide a step-by-step guide and instructions
- Tutorial 1: On login redirect to the user's account page
- Tutorial 2: Publish content exactly 24 hours after it was created
- Tutorial 3: Publish content based on a CCK date field
- Tutorial 4: Publish and unpublish content regularly on some week days (scheduling loops)
- Tutorial 5: Editorial workflow with Rules

# React on user inactivity

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- Use event: “User has logged in”
- Rule Sets for:
  - Notify the user by e-mail
  - Blocking the user
- Upon login:
  - Schedule the notification and remove any previous scheduled tasks
- When notifying:
  - Schedule blocking the user

# A basic editorial workflow (1)

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- User roles:
  - “Editor”, “Publisher”
- Editor:
  - Creates and edits content, but is not able to publish it.
- Publisher:
  - Reviews content and publishes it.

# A basic editorial workflow (2)

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- CCK field “workflow (Draft | Published) for pages
- Content permissions
  - Only publisher may edit the workflow field
- Both roles may edit any pages.
- Simple View: Moderation queue for Publisher
- Pages are unpublished by default
  - Use a Rule to really publish them when the workflow field is set to “Published”.

# Site building with Rules

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- Quickly build new functionality or customize your site by adding some rules
- Import/Export helps staging your rules to production sites and allows you to share your rules with others!
- Easily execute custom short code snippets with rules!
- Write new functionality by exposing new conditions, actions, events, ...
- Exporting rules to a module
  - Do it manually
  - Use “Features” support (fresh!)

# Developing with Rules

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- Helps optimizing code reuse!
  - added events, conditions and actions can be used wherever possible!
- Eases and speeds up development!
  - Don't care where to get your variables from - just specify what you need and use it!
- Minimizes the need of custom code!
- Eases major release upgrades:
  - Just upgrade rules and any custom rules integration!

# Hints & Suggestions (1)

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- Use flags to trigger Rules
  - <http://drupal.org/project/flag>
- Test Rules with “Debugging” enabled
- Avoid token replacements in often evaluated conditions
  - Use separate conditions, if possible.
  - Move the condition using tokens down

# Hints & Suggestions (2)

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- When changing content prefer the event  
“Content is going to be saved”  
in contrast to  
“After content has been updated”  
  
→ Avoid saving content twice!  
→ Use “Content is new” condition to distinguish  
between creation and update.

# What's next? (1)

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- Working on Rules 2.0 as part of my master thesis
- Drupal 7 compatible + probably backport to Drupal 6
- Improved API (OOP, Better reuse, Extendable, ...)
- Support for Lists and Loops
- Overhauled UI + better reusable UI components
- Human readable Rules-Export
- Data selectors for specifying arguments similar to Yahoo! pipes

# What's next? (2)

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- Rule-based communication between web sites!
  - Add support for web services (services module?)
    - Use Rules to invoke remote services!
    - Provide services by configuring Rule-Sets
    - Let drupal sites talk to each other!
  - Key: Make remote data accessible!
    - RDF

# Rules 2.0 Status

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- Development for Drupal 7
  - Code: <http://github.com/fago/rules>
  - It will be ready once Drupal 7 is out!
- The rules engine is working and covered by tests!
- Next steps:
  - UI
  - Web Service Integration
  - Port Module Integration



Any questions?